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ARTICLE 1.0000 PERMITTING PROVISIONS FOR AIR POLLUTION SOURCES, RULES AND OPERATING REGULATIONS FOR ACID RAIN SOURCES, TITLE V AND TOXIC AIR POLLUTANTS

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SECTION 1.5700 TOXIC AIR POLLUTANT PROCEDURES

1.5701 APPLICABILITY

With the exceptions in MCAPCO Regulation 1.5702 - "Exemptions", no person shall cause or allow any toxic air pollutant named in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" to be emitted from any facility into the atmosphere at a rate that exceeds the applicable rate(s) in MCAPCO Regulation 1.5711 - "Emission Rates Requiring a Permit" without having received a permit to emit toxic air pollutants as follows:

- (1) new facilities according to MCAPCO Regulation 1.5704 - "New Facilities"; or
- (2) modifications according to MCAPCO Regulation 1.5706 - "Modifications".

State History Note:

Authority G.S. 143-215.3(a)(1); 143-215.107, 143-215.108; 143B-282;

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Eff. May 1, 2014, July 10, 2010; July 1, 1998; Amended Eff. February 1, 2005.

MCAQ History Note:

Eff. June 17, 2014

1.5702 EXEMPTIONS

(a) A permit to emit toxic air pollutants shall not be required under this Section for:

- (1) residential wood stoves, heaters, or fireplaces;
- (2) hot water heaters that are used for domestic purposes only and are not used to heat process water;
- (3) maintenance, structural changes, or repairs that do not change capacity of that process, fuel-burning, refuse-burning, or control equipment, and do not involve any change in quality or nature or increase in quantity of emission of any regulated air pollutant or toxic air pollutant;
- (4) housekeeping activities or building maintenance procedures, including painting buildings, resurfacing floors, roof repair, washing, portable vacuum cleaners, sweeping, use and associated storage of janitorial products, or non-asbestos bearing insulation removal;
- (5) use of office supplies, supplies to maintain copying equipment, or blueprint machines;
- (6) paving parking lots;
- (7) replacement of existing equipment with equipment of the same size, type, and function if the new equipment:
 - (A) does not result in an increase to the actual or potential emissions of any regulated air pollutant or toxic air pollutant;
 - (B) does not affect compliance status; and,
 - (C) that fits the description of the existing equipment in the permit, including the

- application, such that the replacement equipment can be operated under that permit without any changes to the permit;
- (8) comfort air conditioning or comfort ventilation systems that do not transport, remove, or exhaust regulated air pollutants to the atmosphere;
 - (9) equipment used for the preparation of food for direct on-site human consumption;
 - (10) non-self-propelled non-road engines, except generators, regulated by rules adopted by the Environmental Protection Agency under Title II of the federal Clean Air Act;
 - (11) stacks or vents to prevent escape of sewer gases from domestic waste through plumbing traps;
 - (12) use of fire fighting equipment;
 - (13) the use for agricultural operations by a farmer of fertilizers, pesticides, or other agricultural chemicals containing one or more of the compounds listed in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" if such compounds are applied according to agronomic practices acceptable to the North Carolina Department of Agriculture;
 - (14) asbestos demolition and renovation projects that comply with MCAPCO Regulation 2.1110 - "National Emission Standards for Hazardous Air Pollutants" and that are being done by persons accredited by the Department of Health and Human Services under the Asbestos Hazard Emergency Response Act;
 - (15) incinerators used only to dispose of dead animals or poultry as identified in MCAPCO Regulation 2.1201 - "Purpose And Scope" Subparagraph (c)(4) or incinerators used only to dispose of dead pets as identified in MCAPCO Regulation 2.1208 - "Other Incinerators" Part (a)(2)(A);
 - (16) refrigeration equipment that is consistent with Section 601 through 618 of Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, 40 CFR Part 82, and any other regulations promulgated by EPA under Title VI for stratospheric ozone protection, except those units used as or with air pollution control equipment;
 - (17) laboratory activities:
 - (A) bench-scale, on-site equipment used exclusively for chemical or physical analysis for quality control purposes, staff instruction, water or wastewater analyses, or non-production environmental compliance assessments;
 - (B) bench scale experimentation, chemical or physical analyses, training or instruction from nonprofit, non-production educational laboratories;
 - (C) bench scale experimentation, chemical or physical analyses, training or instruction from hospital or health laboratories pursuant to the determination or diagnoses of illnesses; and
 - (D) research and development laboratory activities that are not required to be permitted under MCAPCO Section 1.5500 - "Title V Procedures" provided the activity produces no commercial product or feedstock material;
 - (18) combustion sources as defined in MCAPCO Regulation 1.5703 - "Definitions" except new or modified combustion sources permitted on or after July 10, 2010;
 - (19) storage tanks used only to store:
 - (A) inorganic liquids with a true vapor pressure less than 1.5 pounds per square inch absolute;

- (B) fuel oils, kerosene, diesel, crude oil, used motor oil, lubricants, cooling oils, natural gas, liquefied petroleum gas, or petroleum products with a true vapor pressure less than 1.5 pounds per square inch absolute;
- (20) dispensing equipment used solely to dispense diesel fuel, kerosene, lubricants or cooling oils;
- (21) portable solvent distillation systems that are exempted under MCAPCO Regulation 1.5211 - "Applicability", Part (g)(1)(H);
- (22) processes:
 - (A) electric motor burn-out ovens with secondary combustion chambers or afterburners;
 - (B) electric motor bake-on ovens;
 - (C) burn-off ovens for paint-line hangers with afterburners;
 - (D) hosiery knitting machines and associated lint screens, hosiery dryers and associated lint screens, and hosiery dyeing processes where bleach or solvent dyes are not used;
 - (E) blade wood planers planing only green wood;
 - (F) saw mills that saw no more than 2,000,000 board feet per year, provided only green wood is sawed;
 - (G) perchloroethylene dry-cleaning processes with 12-month rolling total consumption of:
 - (i) less than 1,366 gallons of perchloroethylene per year for facilities with dry-to-dry machines only;
 - (ii) less than 1,171 gallons of perchloroethylene per year for facilities with transfer machines only; or
 - (iii) less than 1,171 gallons of perchloroethylene per year for facilities with both transfer and dry-to-dry machines;
- (23) wood furniture manufacturing operations as defined in 40 CFR 63.80(a) that comply with the emission limitations and other requirements of 40 CFR 63 Subpart JJ, provided that the terms of this exclusion shall not affect the authority of the Director under MCAPCO Regulation 1.0712 - "Calls By The Director";
- (24) wastewater treatment systems at pulp and paper mills for hydrogen sulfide and methyl mercaptan only;
- (25) natural gas and propane fired combustion sources with an aggregate allowable heat input value less than 450 million Btu per hour that are the only source of benzene at the facility;
- (26) emergency engines with an aggregate total horsepower less than 4843 horsepower that are the only source of formaldehyde at the facility;
- (27) an air emission source that is any of the following:
 - (A) subject to an applicable requirement under 40 CFR 61, as amended;
 - (B) an affected source under 40 CFR 63, as amended; or
 - (C) subject to a case-by-case MACT permit requirement issued by MCAQ pursuant to Paragraph (j) of 42 U.S.C. Section 7412, as amended;
- (28) gasoline dispensing facilities or gasoline service station operations that comply with MCAPCO Regulations 2.0928 - "Gasoline Service Stations Stage I" and 2.0932 -

“Gasoline Truck Tanks and Vapor Collections Systems” and that receive gasoline from bulk gasoline plants or bulk gasoline terminals that comply with MCAPCO Regulations 2.0524 - “New Source Performance Standards”, 2.0925 - “Petroleum Liquid Storage in Fixed Roof Tanks”, 2.0926 - “Bulk Gasoline Tanks”, 2.0927 - “Bulk Gasoline Terminals”, 2.0932 - “Gasoline Truck Tanks and Vapor Collection Systems”, and 2.0933 - “Petroleum Liquid Storage in External Floating Roof Tanks” via truck tanks that comply with MCAPCO Regulation 2.0932 - “Gasoline Truck Tanks and Vapor Collection Systems”;

or

- (29) the use of ethylene oxide as a sterilant in the production and subsequent storage of medical devices or the packaging and subsequent storage of medical devices for sale if the emissions from all new and existing sources at the facility described in MCAPCO Regulation 2.0538 - “Control of Ethylene Oxide Emissions”, Paragraph (d) are controlled to the degree described in Paragraph (d) of that Regulation and the facility complies with Paragraphs (e) and (f) of that Regulation;
- (30) Bulk gasoline plants, including the storage and handling of fuel oils, kerosene, and jet fuels but excluding the storage and handling of other organic liquids, that comply with MCAPCO Regulations 2.0524 – “New Source Performance Standards”, 2.0925 – “Petroleum Liquid Storage In Fixed Roof Tanks”, 2.0926 – “Bulk Gasoline Plants”, 2.0932 – “Gasoline Truck Tanks and Vapor Collection Systems”, and 2.0933 – “Petroleum Liquid Storage In External Floating Roof Tanks”; unless the Director finds that a permit to emit toxic air pollutants is required under Paragraph (b) of this Regulation or MCAPCO Regulation 1.0712 – “Calls By The Director” for a particular bulk gasoline plant; or
- (31) Bulk gasoline terminals, including the storage and handling of fuel oils, kerosene, and jet fuels but excluding the storage and handling of other organic liquids, that comply with MCAPCO Regulations 2.0524 – “New Source Performance Standards”, 2.0925 – “Petroleum Liquid Storage In Fixed Roof Tanks”, 2.0927 – “Bulk Gasoline Terminals”, 2.0932 – “Gasoline Truck Tanks and Vapor Collection Systems”, and 2.0933 – “Petroleum Liquid Storage In External Floating Roof Tanks”, if the bulk gasoline terminals existed before November 1, 1992, unless:
 - (A) The Director finds that a permit to emit toxic air pollutants is required under Paragraph (b) of this Regulation or MCAPCO Regulation 1.0712 – “Calls By The Director” for a particular bulk gasoline terminal; or
 - (B) the owner or operator of the bulk gasoline terminal meets the requirements of Paragraph (i) of MCAPCO Regulation 2.0927 – “Bulk Gasoline Terminals”

(b) Emissions from the activities identified in Subparagraphs (a)(28) through (a)(31) of this Regulation shall be included in determining compliance with the toxic air pollutant requirements in this Section and shall be included in the permit if necessary to assure compliance. Emissions from the activities identified in Subparagraphs (a)(1) through (a)(27) of this Regulation shall not be included in determining compliance with the toxic air pollutant requirements in this Section provided that the terms of this exclusion shall not affect the authority of the Director under MCAPCO Regulation 1.5712 – “Calls By The Director”.

(c) The addition or modification of an activity identified in Paragraph (a) of this Regulation shall not cause the source or facility to be evaluated for emissions of toxic air pollutants.

(d) An activity that is exempt from being permitted under this Section is not exempt from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.

State History Note:

Authority G.S. 143-215.3(a)(1); 143-215.107, 143-215.108; 143B-282;

Rule originally codified as part of 15A NCAC 02H .0610;

Eff. July 1, 1998;

Amended Eff. May 1, 2014, July 10, 2010; April 1, 2005; July 1, 2002; July 1, 2000.

MCAQ History Note:

Eff. June 17, 2014

1.5703 DEFINITIONS

For the purposes of this Section, the following definitions apply:

- (1) **“Actual rate of emissions”** means:
 - (a) for existing sources:
 - (i) for toxic air pollutants with an annual averaging period, the average rate or rates at which the source actually emitted the pollutant during the two-year period preceding the date of the particular modification and that represents normal operation of the source. If this period does not represent normal operation, the Director may allow the use of a different, more representative, period.
 - (ii) for toxic air pollutants with a 24-hour or one-hour averaging period, the maximum actual emission rate at which the source actually emitted for the applicable averaging period during the two-year period preceding the date of the particular modification and that represents normal operation of the source. If this period does not represent normal operation, the Director may require or allow the use of a different, more representative, period.
 - (b) for new or modified sources, the average rate or rates, determined for the applicable averaging period(s), that the proposed source will actually emit the pollutant as determined by engineering evaluation.
- (2) **“Applicable averaging period”** means the averaging period for which an acceptable ambient limit has been established by the Commission in MCAPCO Regulation 2.1104 - “Toxic Air Pollutant Guidelines”.
- (3) **“Bioavailable chromate pigments”** means the group of chromium (VI) compounds consisting of calcium chromate (CAS No.13765-19-0), calcium dichromate (CAS No. 14307-33-6), strontium chromate (CAS No. 7789-06-2), strontium dichromate (CAS No. 7789-06-2), zinc chromate (CAS No. 13530-65-9), and zinc dichromate (CAS No. 7789-12-

- 0).
- (4) **“CAS Number”** means the Chemical Abstract Service registry number identifying a particular substance.
 - (5) **“Chromium (VI) equivalent”** means the molecular weight ratio of the chromium (VI) portion of a compound to the total molecular weight of the compound multiplied by the associated compound emission rate or concentration at the facility.
 - (6) **“Combustion sources”** means boilers, space heaters, process heaters, internal combustion engines, and combustion turbines, which burn only wood or unadulterated fossil fuel. It does not include incinerators, waste combustors, kilns, dryers, or direct heat exchange industrial processes.
 - (7) **“Creditable emissions”** means actual decreased emissions that have not been previously relied on to comply with MCAPCO Article 2.0000 - “Air Pollution Control Regulations and Procedures”. All creditable emissions shall be enforceable by permit condition.
 - (8) **“Cresol”** means o-cresol, p-cresol, m-cresol, or any combination of these compounds.
 - (9) **“Evaluation”** means:
 - (a) a determination that the emissions from the facility, including emissions from sources exempted by MCAPCO Regulation 1.5702 - “Exemptions” Subparagraphs (a)(23) through (24), are less than the rate listed in MCAPCO Regulation 1.5711 - “Emission Rates Requiring A Permit”; or
 - (b) a determination of ambient air concentrations as described under MCAPCO Regulation 2.1106 - “Determination of Ambient Air Concentrations”, including emissions from sources exempted by MCAPCO Regulation 1.5702 - “Exemptions” Subparagraphs (a)(23) through (24).
 - (10) **“GACT”** means any generally available control technology emission standard applied to an area source or facility pursuant to Section 112 of the federal Clean Air Act.
 - (11) **“Hexane isomers except n-hexane”** means 2-methyl pentane, 3-methyl pentane, 2,2-dimethyl butane, 2,3-dimethyl butane, or any combination of these compounds.
 - (12) **“MACT”** means any maximum achievable control technology emission standard applied to a source or facility pursuant to Section 112 federal Clean Air Act.
 - (13) **“Maximum feasible control”** means the maximum degree of reduction for each pollutant subject to regulation under this Section using the best technology that is available taking into account, on a case-by-case basis, human health, energy, environmental, and economic impacts and other costs.
 - (14) **“Modification”** means any physical changes or changes in the methods of operation that result in a net increase in emissions or ambient concentration of any pollutant listed in MCAPCO Regulation 1.5711 - “Emission Rates Requiring A Permit” or that result in the emission of any pollutant listed in MCAPCO Regulation 1.5711 - “Emission Rates Requiring A Permit” not previously emitted.
 - (15) **“Net increase in emissions”** means for a modification the sum of any increases in permitted allowable and decreases in the actual rates of emissions from the proposed modification from the sources at the facility for which the air permit application is being filed. If the net increase in emissions from the proposed modification is greater than zero, all other increases in permitted allowable and decreases in the actual rates of emissions at the facility within five years immediately preceding the filing of the air permit application for the proposed

modification that are otherwise creditable emissions may be included.

- (16) **“Nickel, soluble compounds”** means the soluble nickel salts of chloride (NiCl_2 , CAS No. 7718-54-9), sulfate (NiSO_4 , CAS No. 7786-81-4), and nitrate ($\text{Ni}(\text{NO}_3)_2$, CAS No. 13138-45-9).
- (17) **“Non-specific chromium (VI) compounds”** means the group of compounds consisting of any chromium (VI) compounds not specified in this Section as a bioavailable chromate pigment or a soluble chromate compound.
- (18) **“Polychlorinated biphenyls”** means any chlorinated biphenyl compound or mixture of chlorinated biphenyl compounds.
- (19) **“Pollution prevention plan”** means a written description of current and projected plans to reduce, prevent, or minimize the generation of pollutants by source reduction and recycling and includes a site-wide assessment of pollution prevention opportunities at a facility that addresses sources of air pollution, water pollution, and solid and hazardous waste generation.
- (20) **“SIC”** means standard industrial classification code.
- (21) **“Soluble chromate compounds”** means the group of chromium (VI) compounds consisting of ammonium chromate (CAS No. 7788-98-9), ammonium dichromate (CAS No. 7789-09-5), chromic acid (CAS No. 7738-94-5), potassium chromate (CAS No. 7789-00-6), potassium dichromate (CAS No. 7778-50-9), sodium chromate (CAS No. 7775-11-3), and sodium dichromate (CAS No. 10588-01-9).
- (22) **“Toxic air pollutant”** means any of those carcinogens, chronic toxicants, acute systemic toxicants, or acute irritants listed in MCAPCO 2.1104 - “Toxic Air Pollutant Guidelines”.

State History Note:

Authority G.S. 143-215.3(a)(1); 143-215.107, 143-215.108; 143B-282;

Eff. July 1, 1998;

Amended Eff. May 1, 2014, April 1, 2001.

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MCAQ History Note:

Eff. June 17, 2014

1.5704 NEW FACILITIES

(a) This Regulation applies only to new facilities.

(b) The owner or operator of a facility required to have a permit because of applicability of a Section of MCAPCO Article 2.000 – “Air Pollution Control Regulations and Procedures”, other than MCAPCO Section 2.1100 – “Control Of Toxic Air Pollutants”, are required to receive a permit to emit toxic air pollutants before beginning construction, and shall comply with the permit when beginning operation. This Paragraph does not apply to facilities whose emissions of toxics air pollutants results only from sources exempted under MCAPCO Regulation 1.5211 – “Applicability).

(c) The owner or operator of the facility shall submit a permit application to comply with

MCAPCO Section 2.1100 if emissions of any toxic air pollutant exceed the levels contained in MCAPCO Regulation 1.5711 – “Emission Rates Requiring A Permit”.

(d) The permit application filed pursuant to this Regulation shall include an evaluation for all toxic air pollutants listed in MCAPCO Regulation 2.1104 – “Toxic Air Pollutant Guidelines”. All sources at the facility, excluding sources exempt from evaluation in MCAPCO Regulation 1.5702 – “Exemptions”, emitting these toxic air pollutants shall be included in the evaluation.

State History Note:

*Authority G.S. 143-215.3(a)(1); 143-215.107, 143-215.108; 143B-282;
Eff. July 1, 1998. Rule originally codified as part of 15A NCAC 2H .0610.
Amended Eff. May 1, 2014*

MCAQ History Note:

Eff. June 17, 2014

1.5705 EXISTING FACILITIES AND SIC CALLS (REPEALED)

State History Note:

*Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282; S. L. 1989, C.
168, S. 45;
Eff. July 1, 1998. Rule originally codified as part of 15A NCAC 2H
.0610.
Repealed May 1, 2014*

MCAQ History Note:

Eff. June 17, 2014

1.5706 MODIFICATIONS

(a) The owner or operator shall comply with Paragraphs (b) and (c) of this Regulation for modification of any facility required to have a permit because of applicability of a Section of MCAPCO Article 2.0000 – “Air Pollution Control Regulations and Procedures”, other than MCAPCO Section 2.1100 – “Control Of Toxic Air Pollutants”. This Paragraph does not apply to facilities whose emissions of toxic air pollutants result only from insignificant activities, as defined in MCAPCO Regulation 1.5102(43) – “Definition of Terms”, or sources exempted under MCAPCO Regulation 1.5211 – “Applicability).

(b) The owner or operator of the facility shall submit a permit application to comply with MCAPCO Section 2.1100 - “Control of Toxic Air Pollutants” if:

(1) The modification results in:

(A) a net increase in emissions of any toxic air pollutant that the facility was emitting before the modification; or

(B) emissions of any toxic air pollutant that the facility was not emitting before the modification if such emissions exceed the levels contained in MCAPCO Regulation 1.5711 - "Emission Rates Requiring a Permit";

or

- (2) The Director finds that the modification of the facility will cause an acceptable ambient level in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" to be exceeded. The Director shall provide the findings to the owner or operator of the facility. The Director may require the owner or operator of a facility subject to this Subparagraph to provide an evaluation showing what the resultant emissions and impacts on ambient levels for air toxics from the modified facility will be.

(c) The permit application filed pursuant to this Regulation shall include an evaluation for all toxic air pollutants covered under MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" for which there is:

- (1) a net increase in emissions of any toxic air pollutant that the facility was emitting before the modification; and
- (2) emission of any toxic air pollutant that the facility was not emitting before the modification if such emissions exceed the levels contained in MCAPCO Regulation 1.5711 - "Emission Rates Requiring a Permit".

All sources at the facility, excluding sources exempt from evaluation in MCAPCO Regulation 1.5702 - "Exemptions", emitting these toxic air pollutants shall be included in the evaluation.

(d) If a source is included in an air toxic evaluation, but is not the source that is being added or modified at the facility, and if the emissions from this source must be reduced in order for the facility to comply with the Regulations in this Section and MCAPCO Section 2.1100 - "Control of Toxic Air Pollutants", then the emissions from this source shall be reduced by the time that the new or modified source begins operating such that the facility shall be in compliance with the Regulations in this Section and MCAPCO Section 2.1100.

State History Note:

Authority G.S. 143-215.3(a)(1); 143-215.107, 143-215.108; 143B-282;

Eff. July 1, 1998;

Amended Eff. May 1, 2014, July 10, 2010; December 1, 2005; April 1, 2005.

MCAQ History Note:

Eff. June 17, 2014

1.5707 PREVIOUSLY PERMITTED FACILITIES

Any facility with a permit that contains a restriction based on the evaluation of a source exempted under MCAPCO Regulation 1.5702 - "Exemptions" may request a permit modification to adjust the restriction by removing from consideration the portion of emissions resulting from the exempt source unless the Director determines that the removal of the exempt source will result in an acceptable ambient level in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" being exceeded. The Director shall modify the permit to remove the applicability of the air toxic rules to the exempt source. No fee shall be charged solely for such permit modification.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282;
S. L. 1989, C. 168, S. 45;
Eff. July 1, 1998. Rule originally codified as part of 15A
NCAC 2H .0610.

1.5708 COMPLIANCE SCHEDULE FOR PREVIOUSLY UNKNOWN TOXIC AIR POLLUTANT EMISSIONS

(a) The owner or operator of a facility permitted to emit toxic air pollutants shall submit a permit application within six months after the owner or operator learns of an emission of a previously unknown toxic air pollutant from a permitted source that would have been included in the permit when it was issued. The application shall include the information required by Paragraph (b) of this Regulation.

(b) When an application to revise a permit is submitted under this Regulation, the owner or operator shall in addition to the application, submit to the Director:

- (1) an evaluation for the pollutant according to this Section and MCAPCO Section 2.1100 - "Control of Toxic Air Pollutants" that demonstrates compliance with the acceptable ambient level in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines"; or
- (2) a compliance schedule containing the information required under Paragraph (c) of this Regulation for the proposed modifications to the facility required to comply with the acceptable ambient level according to this Section and MCAPCO Section 2.1100 - "Control of Toxic Air Pollutants".

(c) The compliance schedule required under Subparagraph (b)(2) of this Regulation shall contain the following increments of progress as applicable:

- (1) a date by which contracts for emission control and process equipment shall be awarded or orders shall be issued for the purchase of component parts;
- (2) a date by which on-site construction or installation of the emission control and process equipment shall begin;
- (3) a date by which on-site construction or installation of the emission control and process equipment shall be completed;
- and
- (4) the date by which final compliance shall be achieved.

- (d) Final compliance shall be achieved no later than:
- (1) six months after the permit modification or renewal is issued if construction or installation of emission control or process equipment is not required;
 - (2) one year after the permit modification or renewal is issued if construction or installation of emission control or process equipment is required; or
 - (3) the time that is normally required to construct a stack or install other dispersion enhancement modifications but not more than one year after the permit modification or renewal is issued.
- (e) The owner or operator shall certify to the Director within ten days after each applicable deadline for each increment of progress required under Paragraph (c) of this Regulation whether the required increment of progress has been met.

History Note: Authority G.S. 143-215.3(a)(1); 43-215.107(a)(3), (5); 143B-282; S. L. 1989, C. 168, S. 45; Eff. July 1, 1998.

1.5709 DEMONSTRATIONS

- (a) Demonstrations. The owner or operator of a source who is applying for a permit or permit modification to emit toxic air pollutants shall:
- (1) demonstrate to the satisfaction of the Director through dispersion modeling that the emissions of toxic air pollutants from the facility shall not cause any acceptable ambient level listed in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" to be exceeded beyond the premises (adjacent property boundary);
or
 - (2) demonstrate to the satisfaction of the Director that the ambient concentration beyond the premises (adjacent property boundary) for the subject toxic air pollutant shall not adversely affect human health (*e.g.*, a risk assessment specific to the facility) though the concentration is higher than the acceptable ambient level in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" by providing one of the following demonstrations:
 - (A) the area where the ambient concentrations are expected to exceed the acceptable ambient levels in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" is not inhabitable or occupied for the duration of the averaging time of the pollutant of concern;
or
 - (B) new toxicological data that show that the acceptable ambient level in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" for the pollutant of concern is too low and the facility's ambient impact is below the level indicated by the new toxicological data.
- (b) Technical Infeasibility and Economic Hardship. This Paragraph shall not apply to any incinerator covered under MCAPCO Section 2.1200 - "Control of Emissions from Incinerators". The owner or operator of any source constructed before May 1, 1990, or a perchloroethylene dry

cleaning facility subject to a GACT standard under 40 CFR 63.320 through 63.325 or a combustion source as defined in MCAPCO Regulation 1.5703 – “Definitions” permitted before July 10, 2010, who cannot supply a demonstration described in Paragraph (a) of this Regulation shall:

- (1) demonstrate to the satisfaction of the Director that complying with the guidelines in MCAPCO Regulation 2.1104 - “Toxic Air Pollutant Guidelines” is technically infeasible, as the technology necessary to reduce emissions to a level to prevent the acceptable ambient levels in MCAPCO Regulation 2.1104 - “Toxic Air Pollutant Guidelines” from being exceeded does not exist; or
- (2) demonstrate to the satisfaction of the Director that complying with the guidelines in MCAPCO Regulation 2.1104 - “Toxic Air Pollutant Guidelines” would result in serious economic hardship. In deciding if a serious economic hardship exists, the Director shall consider market impact; impacts on local, regional and state economy; risk of closure; capital cost of compliance; annual incremental compliance cost; and environmental and health impacts.

If the owner or operator makes a demonstration to the satisfaction of the Director pursuant to Subparagraphs (1) or (2) of this Paragraph, the Director shall require the owner or operator of the source to apply maximum feasible control. Maximum feasible control shall be in place and operating within three years from the date that the permit is issued for the maximum feasible control.

(c) **Pollution Prevention Plan.** The owner or operator of any facility using the provisions of Part (a)(2)(A) or Paragraph (b) of this Regulation shall develop and implement a pollution prevention plan consisting of the following elements:

- (1) statement of corporate and facility commitment to pollution prevention;
- (2) identification of current and past pollution prevention activities;
- (3) timeline and strategy for implementation;
- (4) description of ongoing and planned employee education efforts; and
- (5) identification of internal pollution prevention goal selected by the facility and expressed in either qualitative or quantitative terms.

The facility shall submit the pollution plan along with the permit application. The pollution prevention plan shall be maintained on site. A progress report on implementation of the plan shall be prepared by the facility annually and be made available to Department personnel for review upon request.

(d) **Modeling Demonstration.** If the owner or operator of a facility demonstrates by modeling that no toxic air pollutant emitted from the facility exceeds the acceptable ambient level values set out in MCAPCO Regulation 2.1104 - “Toxic Air Pollutant Guidelines” beyond the facility's premises, further modeling demonstration is not required with the permit application. However, the Director may still require more stringent emission levels according to its analysis under MCAPCO Regulation 2.1107 - “Multiple Facilities”.

(e) **Change in Acceptable Ambient Level.** When an acceptable ambient level for a toxic air pollutant in MCAPCO Regulation 2.1104 - “Toxic Air Pollutant Guidelines” is changed, any

condition that has previously been put in a permit to protect the previous acceptable ambient level for that toxic air pollutant shall not be changed until:

- (1) The permit is renewed, at which time the owner or operator of the facility shall submit an air toxic evaluation, excluding sources exempt from evaluation in MCAPCO Regulation 1.5702 – “Exemptions”, showing that the new acceptable ambient level shall not be exceeded. If additional time is needed to bring the facility into compliance with the new acceptable ambient level, the owner or operator shall negotiate a compliance schedule with the Director. The compliance schedule shall be written into the facility’s permit and final compliance shall not exceed two years from the effective date of the change in the acceptable ambient level;
or
- (2) The owner or operator of the facility requests that the condition be changed and submits along with that request an air toxic evaluation, excluding sources exempt from evaluation in MCAPCO Regulation 1.5702 – “Exemptions”, showing that the new acceptable ambient level shall not be exceeded.

State History Note:

Authority G.S. 143-215.3(a)(1); 143-215.107, 143-215.108; 143B-282;

Rule originally codified as part of 15A NCAC 2H .0610;

Eff. July 10, 2010; July 1, 1998;

Amended Eff. May 1, 2014, February 1, 2005.

MCAQ History Note:

Eff. June 17, 2014

1.5710 PUBLIC NOTICE AND OPPORTUNITY FOR PUBLIC HEARING

(a) If the owner or operator of a facility chooses to make a demonstration pursuant to MCAPCO Regulation 1.5709 - “Demonstrations” Subparagraphs (a)(2) or (b), the Director shall approve or disapprove the permit after a public notice with an opportunity for a public hearing.

(b) The public notice shall be given by publication in a newspaper of general circulation in the area where the facility is located.

(c) The public notice shall identify:

- (1) the affected facility;
- (2) the name and address of the permittee;
- (3) the name and address of the person to whom to send comments and requests for public hearing;
- (4) the name, address, and telephone number of a Departmental staff person from whom interested persons may obtain additional information, including copies of the draft permit, the application, compliance plan, pollution prevention plan, monitoring and

- compliance reports, all other relevant supporting materials, and all other materials available to the Department that are relevant to the permit decision;
- (5) the activity or activities involved in the permit action;
 - (6) any emissions change involved in any permit modification;
 - (7) a brief description of the public comment procedures;
 - (8) the procedures to follow to request a public hearing unless a public hearing has already been scheduled; and
 - (9) the time and place of any hearing that has already been scheduled.
- (d) The notice shall allow at least 30 days for public comments.
- (e) If the Director determines that significant public interest exists or that the public interest will be served, the Director shall require a public hearing to be held on a draft permit. Notice of a public hearing shall be given at least 30 days before the public hearing.
- (f) The Director shall make available for public inspection in at least one location in the region affected, the information submitted by the permit applicant and the Department's analysis of that application.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282;
S. L. 1989, C. 168, S. 45;
Eff. July 1, 1998. Rule originally codified as part of 15A
NCAC 2H .0610.

1.5711 EMISSION RATES REQUIRING A PERMIT

(a) A permit to emit toxic air pollutants shall be required for any facility where one or more emission release points are obstructed or non-vertically oriented whose actual rate of emissions from all sources are greater than any one of the following toxic air pollutant permitting emissions rates:

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
acetaldehyde (75-07-0)				6.8
acetic acid (64-19-7)				0.96
acrolein (107-02-8)				0.02
acrylonitrile (107-13-1)		0.4	0.22	
ammonia (7664-41-7)				0.68
aniline (62-53-3)			0.25	
arsenic and inorganic arsenic compounds	0.053			
asbestos (1332-21-4)	5.7×10^{-3}			
aziridine (151-56-4)		0.13		
benzene (71-43-2)	8.1			
benzidine and salts (92-87-5)	0.0010			
benzo(a)pyrene (50-32-8)	2.2			
benzyl chloride (100-44-7)			0.13	
beryllium (7440-41-7)	0.28			
beryllium chloride (7787-47-5)	0.28			
beryllium fluoride (7787-49-7)	0.28			
beryllium nitrate (13597-99-4)	0.28			

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
bioavailable chromate pigments, as chromium (VI) equivalent	0.0056			
bis-chloromethyl ether (542-88-1)	0.025			
bromine (7726-95-6)				0.052
1,3-butadiene (106-99-0)	11			
cadmium (7440-43-9)	0.37			
cadmium acetate (543-90-8)	0.37			
cadmium bromide (7789-42-6)	0.37			
carbon disulfide (75-15-0)		3.9		
carbon tetrachloride (56-23-5)	460			
chlorine (7782-50-5)		0.79		0.23
chlorobenzene (108-90-7)		46		
chloroform (67-66-3)	290			
chloroprene (126-99-8)		9.2	0.89	
cresol (1319-77-3)			0.56	
p-dichlorobenzene (106-46-7)				16.8
dichlorodifluoromethane (75-71-8)		5200		
dichlorofluoromethane (75-43-4)		10		
di(2-ethylhexyl)phthalate (117-81-7)		0.63		
dimethyl sulfate (77-78-1)		0.063		
1,4-dioxane (123-91-1)		12		
epichlorohydrin (106-89-8)	5600			

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
ethyl acetate (141-78-6)			36	
ethylenediamine (107-15-3)		6.3	0.64	
ethylene dibromide (106-93-4)	27			
ethylene dichloride (107-06-2)	260			
ethylene glycol monoethyl ether (110-80-5)		2.5	0.48	
ethylene oxide (75-21-8)	1.8			
ethyl mercaptan (75-08-1)			0.025	
fluorides		0.34	0.064	
formaldehyde (50-00-0)				0.04
hexachlorocyclopentadiene (77-47-4)		0.013	0.0025	
hexachlorodibenzo-p-dioxin (57653-85-7)	0.0051			
n-hexane (110-54-3)		23		
hexane isomers except n- hexane				92
hydrazine (302-01-2)		0.013		
hydrogen chloride (7647-01-0)				0.18
hydrogen cyanide (74-90-8)		2.9	0.28	
hydrogen fluoride (7664-39-3)		0.63		0.064
hydrogen sulfide (7783-06-4)		1.7		
maleic anhydride (108-31-6)		0.25	0.025	
manganese and compounds		0.63		

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
manganese cyclopentadienyl tricarbonyl (12079-65-1)		0.013		
manganese tetroxide (1317-35-7)		0.13		
mercury, alkyl		0.0013		
mercury, aryl and inorganic compounds		0.013		
mercury, vapor (7439-97-6)		0.013		
methyl chloroform (71-55-6)		250		64
methylene chloride (75-09-2)	1600		0.39	
methyl ethyl ketone (78-93-3)		78		22.4
methyl isobutyl ketone (108-10-1)		52		7.6
methyl mercaptan (74-93-1)			0.013	
nickel carbonyl (13463-39-3)		0.013		
nickel metal (7440-02-0)		0.13		
nickel, soluble compounds, as nickel		0.013		
nickel subsulfide (12035-72-2)	0.14			
nitric acid (7697-37-2)				0.256
nitrobenzene (98-95-3)		1.3	0.13	
n-nitrosodimethylamine (62-75-9)	3.4			
non-specific chromium (VI) compounds, as chromium (VI) equivalent	0.0056			
pentachlorophenol (87-86-5)		0.063	0.0064	
perchloroethylene (127-18-4)	13000			

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
phenol (108-95-2)			0.24	
phosgene (75-44-5)		0.052		
phosphine (7803-51-2)				0.032
polychlorinated biphenyls (1336-36-3)	5.6			
soluble chromate compounds, as chromium (VI) equivalent		0.013		
styrene (100-42-5)			2.7	
sulfuric acid (7664-93-9)		0.25	0.025	
tetrachlorodibenzo-p-dioxin (1746-01-6)	0.00020			
1,1,1,2-tetrachloro-2,2,- difluoroethane (76-11-9)		1100		
1,1,2,2-tetrachloro-1,2- difluoroethane (76-12-0)		1100		
1,1,2,2-tetrachloroethane (79-34-5)	430			
toluene (108-88-3)		98		14.4
toluene diisocyanate,2,4-(584-84-9) and 2,6- (91-08-7) isomers		0.003		
trichloroethylene (79-01-6)	4000			
trichlorofluoromethane (75-69-4)			140	
1,1,2-trichloro-1,2,2-trifluoroethane (76-13-1)				240
vinyl chloride (75-01-4)	26			
vinylidene chloride (75-35-4)		2.5		
xylene (1330-20-7)		57		16.4

(b) A permit to emit toxic air pollutants shall be required for any facility where all emission release points are unobstructed and vertically oriented whose actual rate of emissions from all sources are greater than any one of the following toxic air pollutant permitting emissions rates:

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
acetaldehyde (75-07-0)				28.43
acetic acid (64-19-7)				3.90
acrolein (107-02-8)				0.08
acrylonitrile (107-13-1)		1.3	1.05	
ammonia (7664-41-7)				2.84
aniline (62-53-3)			1.05	
arsenic and inorganic arsenic compounds	0.194			
asbestos (1332-21-4)	7.748×10^{-3}			
aziridine (151-56-4)		0.3		
benzene (71-43-2)	11.069			
benzidine and salts (92-87-5)	0.001384			
benzo(a)pyrene (50-32-8)	2.23.044			
benzyl chloride (100-44-7)			0.53	
beryllium (7440-41-7)	0.378			
beryllium chloride (7787-47-5)	0.378			
beryllium fluoride (7787-49-7)	0.378			
beryllium nitrate (13597-99-4)	0.378			
bioavailable chromate pigments, as chromium (VI) equivalent	0.008			

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
bis-chloromethyl ether (542-88-1)	0.034			
bromine (7726-95-6)				0.21
1,3-butadiene (106-99-0)	40.585			
cadmium (7440-43-9)	0.507			
cadmium acetate (543-90-8)	0.507			
cadmium bromide (7789-42-6)	0.507			
carbon disulfide (75-15-0)		7.8		
carbon tetrachloride (56-23-5)	618.006			
chlorine (7782-50-5)		1.6		0.95
chlorobenzene (108-90-7)		92.7		
chloroform (67-66-3)	396.631			
chloroprene (126-99-8)		18.5	3.69	
cresol (1319-77-3)			2.32	
p-dichlorobenzene (106-46-7)				69.5
dichlorodifluoromethane (75-71-8)		10445.4		
dichlorofluoromethane (75-43-4)		21.1		
di(2-ethylhexyl)phthalate (117-81-7)		1.3		
dimethyl sulfate (77-78-1)		0.1		
1,4-dioxane (123-91-1)		23.6		
epichlorohydrin (106-89-8)	7655.891			
ethyl acetate (141-78-6)			147.41	
ethylenediamine (107-15-3)		12.6	2.63	

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
ethylene dibromide (106-93-4)	36.896			
ethylene dichloride (107-06-2)	350.511			
ethylene glycol monoethyl ether (110-80-5)		5.1	2.00	
ethylene oxide (75-21-8)	2.49			
ethyl mercaptan (75-08-1)			0.11	
fluorides		0.7	0.26	
formaldehyde (50-00-0)				0.16
hexachlorocyclopentadiene (77-47-4)		0.025	0.01	
hexachlorodibenzo-p-dioxin (57653-85-7)	0.007			
n-hexane (110-54-3)		46.3		
hexane isomers except n- hexane				379.07
hydrazine (302-01-2)		0.025		
hydrogen chloride (7647-01-0)				0.74
hydrogen cyanide (74-90-8)		5.9	1.16	
hydrogen fluoride (7664-39-3)		1.3		0.26
hydrogen sulfide (7783-06-4)		5.1		
maleic anhydride (108-31-6)		0.5	0.11	
manganese and compounds		1.3		
manganese cyclopentadienyl tricarbonyl (12079-65-1)		0.025		
manganese tetroxide (1317-35-7)		0.3		

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
mercury, alkyl		0.0025		
mercury, aryl and inorganic compounds		0.025		
mercury, vapor (7439-97-6)		0.025		
methyl chloroform (71-55-6)		505.4		257.98
methylene chloride (75-09-2)	2213.752		1.79	
methyl ethyl ketone (78-93-3)		155.8		93.19
methyl isobutyl ketone (108-10-1)		107.8		31.59
methyl mercaptan (74-93-1)			0.05	
nickel carbonyl (13463-39-3)		0.025		
nickel metal (7440-02-0)		0.3		
nickel, soluble compounds, as nickel		0.025		
nickel subsulfide (12035-72-2)	0.194			
nitric acid (7697-37-2)				1.05
nitrobenzene (98-95-3)		2.5	0.53	
n-nitrosodimethylamine (62-75-9)	4.612			
non-specific chromium (VI) compounds, as chromium (VI) equivalent	0.008			
pentachlorophenol (87-86-5)		0.01	0.03	
perchloroethylene (127-18-4)	17525.534			
phenol (108-95-2)			1.00	
phosgene (75-44-5)		0.1		

Toxic Air Pollutant (CAS Number)	Carcinogens	Chronic Toxicants	Acute Systemic Toxicants	Acute Irritants
	lb/year	lb/day	lb/hour	lb/hour
phosphine (7803-51-2)				0.14
polychlorinated biphenyls (1336-36-3)	7.656			
soluble chromate compounds, as chromium (VI) equivalent		0.026		
styrene (100-42-5)			11.16	
sulfuric acid (7664-93-9)		0.5	0.11	
tetrachlorodibenzo-p-dioxin (1746-01-6)	0.0002767			
1,1,1,2-tetrachloro-2,2,- difluoroethane (76-11-9)		2190.2		
1,1,2,2-tetrachloro-1,2- difluoroethane (76-12-0)		2190.2		
1,1,2,2-tetrachloroethane (79-34-5)	581.110			
toluene (108-88-3)		197.96		58.97
toluene diisocyanate,2,4-(584-84-9) and 2,6- (91-08-7) isomers		0.084		
trichloroethylene (79-01-6)	5442.140			
trichlorofluoromethane (75-69-4)			589.66	
1,1,2-trichloro-1,2,2-trifluoroethane (76-13-1)				1000.32
vinyl chloride (75-01-4)	35.051			
vinylidene chloride (75-35-4)		5.1		
xylene (1330-20-7)		113.7		68.44

(c) For the following pollutants, the highest emissions occurring for any 15-minute period shall be

multiplied by four and the product shall be compared to the value in Paragraph (a). These pollutants are:

- (1) acetaldehyde (75-07-0);
- (2) acetic acid (64-19-7);
- (3) acrolein (107-02-8);
- (4) ammonia (7664-41-7);
- (5) bromine (7726-95-6);
- (6) chlorine (7782-50-5);
- (7) formaldehyde (50-00-0);
- (8) hydrogen chloride (7647-01-0);
- (9) hydrogen fluoride (7664-39-3);
- (10) nitric acid (7697-37-2).

State History Note:

Authority G.S. 143-215.3(a)(1); 143-215.107, 143-215.108; 143B-282;

Rule originally codified as part of 15A NCAC 2H .0610.

Eff. July 1, 1998;

Amended Eff. May 1, 2015; July 7, 2014; May 1, 2014, January 1, 2010; June 1, 2008; April 1, 2005; April 1, 2001.

MCAQ History Note:

Eff. December 15, 2015; October 7, 2014; June 17, 2014

1.5712 CALLS BY THE DIRECTOR

Notwithstanding any other provision of this Section or MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines", upon a written finding that a source or facility emitting toxic air pollutants presents an unacceptable risk to human health based on the acceptable ambient levels in MCAPCO Regulation 2.1104 - "Toxic Air Pollutant Guidelines" or epidemiology studies, the Director may require the owner or operator of the source or facility to submit a permit application to comply with MCAPCO Regulation 2.1100 - "Control of Toxic Air Pollutant" for any or all of the toxic air pollutants emitted from the facility.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282;
S. L. 1989, C. 168, S. 45;
Eff. July 1, 1998. Rule originally codified as part of 15A
NCAC 2H .0610.

1.5713 POLLUTANTS WITH OTHERWISE APPLICABLE FEDERAL STANDARDS OR REQUIREMENTS

(a) This Regulation applies to the establishment of emission limitations or any other requirements pursuant to the requirements of this Section or MCAPCO Section 2.1100 - "Control of Toxic Air Pollutants" for which a standard or requirement has been promulgated under Section 112 of the

federal Clean Air Act including those contained in MCAPCO Regulations 2.1110 - “National Emission Standards for Hazardous Air Pollutants” and 2.1111 - “Maximum Achievable Control Technology”.

(b) For each facility subject to emission standards or requirements under Section 112 of the federal Clean Air Act, permits issued or revised according to MCAPCO Section 1.5500 - “Title V Procedures” shall contain specific conditions that:

- (1) reflect applicability criteria no less stringent than those in the otherwise applicable federal standards or requirements;
- (2) require levels of control for each affected facility and source no less stringent than those contained in the otherwise applicable federal standards or requirements;
- (3) require compliance and enforcement measures for each facility and source no less stringent than those in the otherwise applicable federal standards or requirements;
- (4) express levels of control, compliance, and enforcement measures in the same form and units of measure as the otherwise applicable federal standards or requirements; and
- (5) assure compliance by each affected facility no later than would be required by the otherwise applicable federal standard or requirement.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282; S. L. 1989, C. 168, S. 45;
Eff. July 1, 1998.

